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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,305	12/12/2001	Erik Laridon	5383	5658

7590 11/21/2003

Milliken & Company  
P. O. Box 1927  
Spartanburg, SC 29304

EXAMINER
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WANG, SHENGJUN

ART UNIT	PAPER NUMBER
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1617

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/015,305	LARIDON ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Shengjun Wang	1617	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 October 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 33-48 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-48 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \*    c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
     a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Receipt of applicants' remarks and terminal disclaimer submitted October 17, 2003 is acknowledged. The final rejections mailed October 7, 2003 are herein withdrawn in favor of the following office action.

#### ***Claim Rejections 35 U.S.C. 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 33-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lever (US 6,187,456), in view of Koji et al. (JP 406136233, with English abstract).

2. Lever teaches an antimicrobial plastic article comprising a polymer, a silver zirconium phosphate antimicrobial compounds and about 0.08% by weight of calcium stearate. See, particularly, the example 2 in column 2. The polymer may be polyolefin, such as polypropylene and polyethylene. See the examples.

3. Lever does not teach expressly to employ the particular amount of calcium stearate herein. (0.1-1.25%, 0.2-1.0% or 0.3%).

4. However, Koji et al. teaches that fatty acid salts, particularly, calcium stearate, are known to be useful in antimicrobial plastic article as lubricant in the amounts of 0.01-10% by weight, and preferably 0.1-5% by weight. See particularly, the abstract, and column 9, lines 28-39.

Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to employ calcium stearate in the amounts herein claimed.

A person of ordinary skill in the art would have been motivated employ calcium stearate in the amounts herein claimed because the amounts herein employed are within the range of known preferable amounts in a antimicrobial plastics article. The optimization of a result effective parameter, e.g., the amount of a known ingredient in a composition, is considered within the skill of the artisan. See, In re Boesch and Slaney (CCPA) 204 USPQ 215.

5. Claims 33-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koji et al. (JP 406136233, with English abstract).

6. Koji et al teach an antimicrobial resin comprising a polymer, an antimicrobial composition which comprising silver zirconium phosphate, and fatty acid metal salts, such as calcium stearate, as lubricants. See, the abstract. The amounts of lubricant is 0.01-10% by weight, and preferably 0.1-5% by weight. See particularly, the abstract, and column 9, lines 28-39. The polymers employed herein may comprise various thermoplastic polymers, such as polyethylene, polypropylene. See, the abstract and column 4, lines 34-50.

7. Koji does not teach expressly to employ the particular amount of calcium stearate herein. (0.1-1.25%, 0.2-1.0% or 0.3%).

However, Therefore, it would have been prima facie obvious to a person of ordinary skill in the art, at the time the claimed the invention was made, to employ calcium stearate in the amounts herein claimed because such amount is with the range of Koji's referred amounts. The

optimization of a result effective parameter, e.g., the amount of a known ingredient in a composition, is considered within the skill of the artisan. See, In re Boesch and Slaney (CCPA) 204 USPQ 215.

***Response to the Arguments***

Applicants' amendments and arguments submitted July 24, 2003, and the remarks submitted October 17, 2003 have been fully considered, but are not persuasive with respect to the rejection set forth above.

Regarding the remarks about Lever reference (US 6,187,456), note Lever reference (US 6,187,456) is published on February 13, 2003, before the effective filing date of instant application. Therefore, Lever reference (US 6,187,456) qualifies as reference under 35 U.S.C. 102 (a), which could not be disqualified as a prior art by the statement submitted herein. See, 35 U.S.C. 103(c). Note Lever reference is a 102(a) type reference, to disqualify this reference as prior art, a TD and an oath or declaration, stating that the application and the patent are currently owned by the same party, and that the inventor named in the application is the prior inventor under 35 U.S.C. 104 (rule 1.130), are required .

Applicants argue that the instant claims are not obvious over Koji because Koji are limited to rubber –reinforced styrenic resins, and the instant claims require polyolefin resin. The arguments are not persuasive. Particularly, Koji are not limited to rubber-reinforced styrenic resins, but may encompass other thermoplastic polymers, such as polyethylene, and polypropylene. See, paragraph 19 (column 4, lines 34-50, also see the English translation).

Applicant's amendment submitted July 24, 2003 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See

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MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

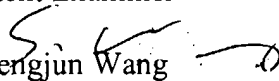
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shengjun Wang, Ph.D. whose telephone number is (703) 308-4554. The examiner can normally be reached on Monday-Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan, can be reached on (703) 305-1877. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-4556.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Patent Examiner

  
Shengjun Wang  
November 19, 2003